

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Numbers 917 to 960

M. S. F. L.  
Theora Book  
1884.

No. 1.

Observations 917-

July 16<sup>th</sup> to

Prof.

# TEMPERATURE RECORD.

Instrument used, 977 Trawl  
 Current number of observation, 917  
 Date, July 16.  
 Locality, Off Martha's Vineyard  
 Bearings, Lat.  $40^{\circ} 22' N.$   
 Long.  $70^{\circ} 42' W.$   
 Time of day, 4.10 a.m.; of tide,  
 State of sky, Clear  
 Temperature of air,  $66^{\circ}$   
 " surface of water,  $63^{\circ}$  (46 <sup>n. 3.</sup> 40 2)  
 20 f.  $45^{\circ}$  " at depth of 10 fathoms,  $49^{\circ}$   
 " of bottom,  $42^{\circ}$  (46 <sup>n. 3.</sup> 40 3)  
 Depth, in fathoms, 43. = 44  
 Nature of bottom, Green mud.  
 Direction of ~~surface~~ <sup>wind</sup> current, S. E. Force 1,  
 Drift- N. E.  $3\frac{1}{4}$  miles.  
 Force of surface current,  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel, Fish Hawk.  
 To what service attached, U. S. F. C.  
 Name and rank of commanding officer, Z. L. Tanner,  
 Lieut., U. S. N.  
 Name and position of observer,  
 Prof. A. P. Chapin  
 Yeoman.

917

## REMARKS.

*Pandalus Montagu* ? few  
*Stellio vulgaris*. Half a dozen  
*Peckia tenuicostatus* abundant &  
*Ophioglypha Sarsii*, small  
*Surula* 4 or 5, Shell.  
 - Egg. Case. abt.  
*Corygon vulgaris*. ~~4~~ 2.  
*Cyprina Islandica* small.  
*Goldia sapidilla* 1 or 2  
*Pleurobrachia larva*,

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

918.

Date,

July 16, 1881.

Locality,

Off Martha's Vineyard.

Bearings,

Lat.  $40^{\circ} 20' 24''$  N.

Long.  $70^{\circ} 41' 35''$  W.

Time of day,

5, 33 am; of tide,

State of sky,

Clear

Temperature of air,

67°

"

surface of water,

63

(46402)

"

at depth of

10

fathoms,

49°

"

of bottom,

42°

(46403)

Depth, in fathoms,

45 f. = 46.

Nature of bottom,

green mud.

Direction of surface current,

wind. S.E. force 1.

Force of surface current,

drift N.N.E. 1 m

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

918

REMARKS.

*Leptocerus*

- Pandalus Montagu* ? very abdt.  
*Ophiops. tarsi* "  
*Cast. vulgus* "  
*Cluidia elegans* "  
*Amphimura squamata* ?  
~~*Pectinotentax tenera* ?~~  
~~*Rossia sulcata*~~  
*Pleurobranchia latida*  
*Lunatia heros*  
*Goldia sapotilla*  
*Cardium pinnulatum*  
*Cyprina belandieri*, very yg.  
*Anomia aculeata*  
*Pecten tenuicostatus*, young  
*Lucina fibosa* dead.  
~~*Sapton*~~  
*Saemonea armata*  
*Eupagurus*, in *Neptunus pygmaea*  
*Nephtys incisa*  
*Scaphander punctostriata*  
*Caprella*  
*Aphroditi aculeata*  
*Thracia Com. adi* dead  
*Cancer borealis* young ?  
*Alexandrium rubrum*  
*Catalina tridentata*

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *919.*

Date, *July 16, 1881.*

Locality, *Off Martha's Vineyard*

Bearings, *Lat. 40° 16' 18" N*

*Long. 70° 41' 18" W.*

Time of day, *7 am.*; of tide, *—*

State of sky, *Clear*

Temperature of air, *70°*

" surface of water, *66° (46402)*

" at depth of *15* fathoms, *48°*

" of bottom, *42 1/2 (46403)*

Depth, in fathoms, *57 1/2 = 53.*

Nature of bottom, *green mud*

Direction of ~~surface current~~ *wind S. force 1.*

*Drift*  
Force of surface current, *N. E. 1 m*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

*66.*  
*42*  
*24*

919

## REMARKS.

Beekun Limnicostatus very abundant  
mostly small 1-2 inch



## TEMPERATURE RECORD.

Instrument used, *Trawl*  
Current number of observation, *920.*  
Date, *July 16, 1881.*  
Locality, *Off Matanzas Vineyard*  
Bearings, *Lat 40° 13' N,*  
*Long. 70° 41' 54" W,*  
Time of day, *8.20 am* of tide,  
State of sky, *Clear*  
Temperature of air, *72*  
" surface of water, *66 46402*  
" at depth of *10* fathoms, *48°*  
" of bottom, *49° 46403*  
Depth, in fathoms, *61, = 63.*  
Nature of bottom, *Green mud*  
Direction of ~~surface current~~ *wind S. force 1.*  
*Drift*  
~~Force of surface current~~ *W. by S. 1 m*  
Direction of bottom current,  
Force of bottom current,  
Name of vessel,  
To what service attached,  
Name and rank of commanding officer,  
Name and position of observer,

- Archaster Americanus* very abdt.  
*Antia. vulgaris*. few.  
*Epizoanthus Americanus* common.  
*Articina perdis*, Dozen or more.  
*Camphura* new sp. very abdt.  
*Pleurobranchia laida* many.  
*Heteroleutis tenera*. 8.  
*Pecten tenuicostatus*, large many.  
*Anomia aculeata* com.  
*Cyprina Islandica*  
*Lunula* Texas.  
*Nephtys arata* dead  
*Glypta* *capitata*.  
*Soripes* *tener* dead  
*Suberites* sp.  
*Ophiophora* *darwinii*.  
*Ophiophora* *aculeata*.  
*Euproagurus*, sp. small.  
*Porophora* *Norvegica*.  
*Randallia*, sp.  
*Molania*.  
*Ampelisca gracilis*.  
*Hemipagurus* small sp.

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *921.*  
 Date, *July 16, 1884.*  
 Locality, *off Martha's Vineyard*  
 Bearings, *Lat. 40° 07' 48" N*  
*Long. 70° 43' 04" W.*  
 Time of day, *9.40 a.m.* of tide,  
 State of sky, *Clear.*  
 Temperature of air, *75°*  
     " surface of water, *70.* (*46402*)  
     " at depth of *10* fathoms, *66°*  
     " of bottom, *520* (*42663*)  
 Depth, in fathoms, *65 = 67.*  
 Nature of bottom, *Green mud*  
 Direction of surface current, *wind S. S. W, force 1,*  
*Force of surface current, W, 1 mi*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

REMARKS.

## TEMPERATURE RECORD.

Instrument used, *Trawl*  
Current number of observation, *922*,  
Date, *July 16, 1884*.  
Locality, *St. Martha's Vineyard*,  
Bearings, *Lat. 43° 03' 48" N.*  
*Long. 70° 45' 54" W.*  
Time of day, *10.55 a.m.*; of tide,  
State of sky, *Cloudy*  
Temperature of air, *76°*  
" surface of water, *72*  
" at depth of *10* fathoms, *59°*  
" of bottom, *520*,  
Depth, in fathoms, *69 = 71*.  
Nature of bottom, *fine sand and mud*  
Direction of surface current, *S.W. force 2*  
Force of surface current, *N. by W. 1 m*  
Direction of bottom current,  
Force of bottom current,  
Name of vessel,  
To what service attached,  
Name and rank of commanding officer,  
Name and position of observer,

REMARKS.

## TEMPERATURE RECORD.

Instrument used, *Trawl*  
Current number of observation, *923.*  
Date, *July 16, 1881.*  
Locality, *off Martha's Vineyard.*  
Bearings, *Lat. 40° 01' 24" N*  
*Long. 70° 46' W.*  
Time of day, *12.27 P.M.* of tide.  
State of sky, *Clear*  
Temperature of air, *74 1/2°*  
" surface of water, *72°*  
" at depth of *10* fathoms, *55°*  
" of bottom, *52°*  
Depth, in fathoms, *96. = 98.*  
Nature of bottom, *sand.*  
Direction of ~~surface current~~ *wind S.W., force 2.*  
*Drift*  
Force of ~~surface current~~, *W.N.W., 1 1/2 m*  
Direction of bottom current,  
Force of bottom current,  
Name of vessel,  
To what service attached,  
Name and rank of commanding officer,  
Name and position of observer,

**REMARKS.**



# TEMPERATURE RECORD.

Instrument used, *Trawl*  
Current number of observation, *924,*  
Date, *July 16, 1891*  
Locality, *Off Martha's Vineyard,*  
Bearings, *Lat. 39° 57' 30" N.*  
*Long. 70° 46' W.*  
Time of day, *1152 P.M.* of tide,  
State of sky, *Clear,*  
Temperature of air, *74 1/2*  
" surface of water, *71*  
" at depth of *5* fathoms, *70° 10' 61°*  
" of bottom, *44 1/2,*  
Depth, in fathoms, *160 = 164,*  
Nature of bottom, *Sand*  
Direction of ~~surface~~ *wind* current, *S.W., force*  
~~Force of surface current,~~ *1 mi. 2 mi*  
Direction of bottom current,  
Force of bottom current,  
Name of vessel,  
To what service attached,  
Name and rank of commanding officer,  
Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *925*  
 Date, *July 16, 1881*  
 Locality, *Off Martha's Vineyard*  
 Bearings, *Lat. 39° 55' N*  
*Long. 70° 47' W*  
 Time of day, *3.35 PM*; of tide,  
 State of sky, *hazy*  
 Temperature of air, *74*  
 " surface of water, *71*  
 " at depth of *5* fathoms, *70°; 125.58°*  
 " of bottom, *42°*  
 Depth, in fathoms, *224, = 229.*  
 Nature of bottom, *Sand and mud*  
 Direction of ~~surface current~~, *5.8 W. force.*  
~~Force of surface current~~, *11. W. by W. 1/2 N*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

## REMARKS.

## TEMPERATURE RECORD.

Instrument used, *Trawl.*  
Current number of observation, *926.*  
Date, *July 16, 1884*  
Locality, *off Cape Cod, N. England.*  
Bearings, *Lat. 39° 56' N*  
*Long. 70° 46' W.*  
Time of day, *5.24 P.M.*, of tide,  
State of sky, *Cloudy.*  
Temperature of air, *74°*  
" surface of water, *71°*  
" at depth of *10* fathoms, *68°*  
" of bottom, *44°*  
Depth, in fathoms, *195. = 199.*  
Nature of bottom, *moderate sand*  
Direction of ~~surface~~ *surface* current, *S. S. W. force 3.*  
~~Force~~ *Force* of surface current, *1 mi. 12 mi. 2 1/2 mi*  
Direction of bottom current,  
Force of bottom current,  
Name of vessel,  
To what service attached,  
Name and rank of commanding officer,  
Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *927*  
 Date, *July 20*  
 Locality, *Mormonsha Big Is.*  
 Bearings, *Gay Head Light House N. by E. 1/2 S. 2 1/2 m.*  
*Serpentine Cove S. by E. 1/2 S. 6 m.*  
 Time of day, *10.47* ; of tide, *ebb.*  
 State of sky, *Cloudy*  
 Temperature of air, *68.*  
 " surface of water, *62*  
 " at depth of *5* fathoms, *61*  
 " of bottom, *59*  
 Depth, in fathoms, *11*  
 Nature of bottom, *Sandy*  
 Direction of ~~surface current~~, *Wind S. S. W. Force 2*  
~~Force of surface current~~, *Drift W. 1/2 N. 2 m.*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

REMARKS.



# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *928*  
 Date, *July 20*  
 Locality, *Menemsha Light*  
 Bearings, *Long beach Light N. 34 S 2 1/2 m.*  
*Capitan Light N. 10 S 2 1/2 6 1/2 m*  
 Time of day, *11.30*; of tide, *low water*  
 State of sky, *Partly cloudy*  
 Temperature of air, *69*  
 " surface of water, *62 1/2*  
 " at depth of *5* fathoms, *59*  
 " of bottom, *60*  
 Depth, in fathoms, *10*  
 Nature of bottom, *Sand*  
 Direction of ~~surface current~~ *Wind S. S. W. Force 3*  
~~Force of surface current~~ *Drift W. by N. 1/2 m.*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

## REMARKS.

# TEMPERATURE RECORD.

Instrument used,

*Dredge*

Current number of observation,

*929*

Date,

*July 20*

Locality,

*Vineyard Pt. off Martha's Hole.*

Bearings,

*Gay Head S. by W.  $4\frac{1}{2}$  m.*

*Roberts Lgh*

*N. by E.  $3\frac{1}{4}$  3 10 m.*

Time of day,

*12.35 P.M.*

of tide,

*Low water*

State of sky,

*cloudy*

Temperature of air,

*66*

"

surface of water,

*63*

"

at depth of

*5*

fathoms,

"

of bottom,

*62*

Depth, in fathoms,

*10*

Nature of bottom,

*Sand*

Direction of ~~surface~~ current,

*Wind*

*S. by W.*

*Force 8*

~~Force of surface current,~~

*Drift*

*S. by S*

*$\frac{3}{4}$  m.*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used,

*Dredge*

Current number of observation,

*930*

Date,

*July 20*

Locality,

*Vineyard Id. off Quicks Hole*

Bearings,

*Gay Head B. by N.  $2\frac{1}{2}$  m.*

*Vineyard Id. Light N. by E.  $7\frac{1}{2}$  m.*

Time of day,

*1.10 P.M.; of tide,*

*low water*

State of sky,

*cloudy*

Temperature of air,

*65*

"

surface of water,

*63*

"

at depth of

*5*

fathoms,

*63*

"

of bottom,

*62*

Depth, in fathoms,

*12*

Nature of bottom,

*Sand*

Direction of surface current,

*Wind*

*S. by E.*

Force of surface current,

*Drift*

*S.  $\frac{1}{2}$  E.*

*$\frac{1}{2}$  m.*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used,

*Tredger*

Current number of observation,

*931*

Date,

*July 20*

Locality, *Vineyard Id. off Robinsons Hd.*

Bearings *Porter Is. S. 45° E. 10. 1/2 m.*

*Gay Head S. 45° E. 10. 1/2 S. 5 1/2 m.*

Time of day, *1.42 P.M.* ; of tide, *1/2 ebb*

State of sky,

*Cloudy*

Temperature of air,

*65*

" surface of water, *63*

" at depth of *5* fathoms,

" of bottom, *62*

Depth, in fathoms,

*16*

Nature of bottom,

*Sand and shells*

Direction of ~~surface~~ *Wind* current,

*S. W. Force 2*

~~Force of surface~~ *Drift* current,

*S. 1/2 W. 1/2 m.*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.



# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*932*

Date,

*July 20*

Locality,

*Vineyard Id. off Nantucket Cape.*

Bearings,

*Temperature 100° Sph. N. by E 3 3/4 m.*

*100° Sph. N. by E 3 3/4 m.*

Time of day,

*2:48 P.M. of tide,*

*g. e. e.*

State of sky,

*cloudy*

Temperature of air,

*67*

"

surface of water,

*66*

"

at depth of

*5*

fathoms,

*66*

"

of bottom,

*60*

Depth, in fathoms,

*14*

Nature of bottom,

*Rock*

Direction of surface current,

*S.W.*

*Force 2*

Force of surface current,

*N.W.*

*Force 1*

Direction of bottom current,

*W.*

*Force 1*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

# TEMPERATURE RECORD.

Instrument used,

*Sigsbee*

Current number of observation,

*930*

Date,

*July 21*

Locality,

*Longwood Id. off Cape Cod*

Bearings,

*West Chop Light S  $34^{\circ}$  E.  $3\frac{1}{2}$  m.*

*Longwood Cove Light W. 7 m.*

Time of day,

*3.30 P.M.*, of tide,

State of sky,

*Cloudy*

Temperature of air,

*65*

"

surface of water,

*65*

"

at depth of

*5*

fathoms,

*64*

"

of bottom,

*64*

Depth, in fathoms,

*44*

Nature of bottom,

*Stones*

Direction of ~~surface current~~,

*Wind*

*S.W.*

*Force E.*

Force of ~~surface current~~,

*Drift*

*E. N. E.*

*2 1/2*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *934*

Date, *July 20*

Locality, *off Cape Cod*

Bearings, *Nobe. La. Light W. 1/2 E. 1/2 m*

*West Cape Light S. 3/4 E. 3 2 3/4 m.*

Time of day, *4:10 P.M.* of tide, *low.*

State of sky, *Cloudy*

Temperature of air, *68*

" surface of water, *67*

" at depth of *5* fathoms, *67*

" of bottom, *67*

Depth, in fathoms, *9*

Nature of bottom, *Sand and gravel.*

Direction of surface current, *Wind S.W. Force 1*

Force of surface current, *1 m.*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

## TEMPERATURE RECORD.

Instrument used, . . . .

Current number of observation,

Date,

Locality,

Bearings, . . . . .

Time of day, . . . . . ; of tide,

State of sky,

Temperature of air,

.. surface of water,

.. at depth of . . . fathoms,

.. of bottom,

Depth, in fathoms, . . . . .

= 782

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.



# TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

= 716.

Nature of bottom,

Direction of surface current,

~~Force of surface current,~~

~~Direction of bottom current,~~

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used, . . . . .

Current number of observation, . . . . .

Date, . . . . .

Locality, . . . . .

Bearings, . . . . .

Time of day, . . . . . ; of tide,

State of sky, . . . . .

Temperature of air, . . . . .

" surface of water, . . . . .

" at depth of . . . . . fathoms,

" of bottom, . . . . .

Depth, in fathoms, . . . . .

= 516. { should be }  
. 616. }

Nature of bottom, . . . . .

Direction of ~~surface current~~, . . . . .

Force of ~~surface current~~, . . . . .

Direction of bottom current, . . . . .

Force of bottom ~~current~~, . . . . .

Name of vessel, . . . . .

To what service attached, . . . . .

Name and rank of commanding officer, . . . . .

Name and position of observer, . . . . .

REMARKS.

## TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

= 317.

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

**REMARKS.**

# TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

= 264

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.



# TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings, —

Time of day, ; of tide,

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms,

“ of bottom,

Depth, in fathoms,

= 134

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, = 79.

Nature of bottom,

Direction of ~~surface current~~,

Force of ~~surface current~~,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used,

*Grease*

Current number of observation,

*922*

Date,

*Aug. 9th*

Locality, Lat.

*40° 01' N*

Bearings, Long

*71° 12' 36" W*

Time of day,

*6.15 AM*; of tide,

State of sky,

*Clear*

Temperature of air,

*72*

" surface of water,

*69*

" at depth of

*5*

fathoms,

*69°, 10 fms 69°*

" of bottom,

*50°*

Depth, in fathoms,

*134 = 138*

Nature of bottom,

*Sand and mud.*

Direction of ~~surface current~~,

*Wind*

*S. W. Force 2*

~~Force of surface current.~~

*Drift*

*S. W. 1/2 N. 2 mi.*

~~Direction of bottom current,~~

*Temperature at*

*25 fms. 52°*

~~Force of bottom current,~~

*50 fms. 52°*

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used,

*Dredge*

Current number of observation.

*943*

Date,

*Aug 9th*

Locality,

*Lat. 40. N.*

Bearings,

*Long 71° 14' 30" W*

Time of day,

*7:10 A.M.*; of tide,

State of sky,

*Clear*

Temperature of air,

*76*

"

surface of water,

*70*

"

at depth of

*5*

fathoms,

*69° W. 65°*

"

of bottom,

*49*

Depth, in fathoms,

*153 = 157.*

Nature of bottom,

*Mud, sand & shells*

Direction of surface current,

*Wind*

*S.W.*

*Force*

Force of surface current,

*Drift*

*1 1/2 mi*

*2 1/2 mi*

Direction of bottom current,

*Temperature of*

*52°*

*53°*

Force of bottom current,

*"*

*"*

*50 f*

*53°*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.



# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

244

Date,

Aug. 9

Locality,

Lat. 40° 01' N.

Bearings,

Long 71° 14' 30" W.

Time of day, 8.27 A.M.; of tide,

State of sky,

Clear

Temperature of air,

78°

" surface of water,

70°

" at depth of 5 fathoms,

68. 10 f.

" of bottom,

67°

Depth, in fathoms,

124 = 128

Nature of bottom,

Sand, mud & shells

Direction of surface current,

Wind

S. by E.

Force

Force of surface current,

1.5 kts.

Force

Temperature at

20 f.

55°

Direction of bottom current,

50 "

Force of bottom current.

Name of vessel.

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

945

Date,

Aug. 9th

Locality,

Lat. 39° 58' N.

Bearings,

Long. 71° 13' W.

Time of day,

12.05 ; of tide,

State of sky,

Clear.

Temperature of air,

75°

"

surface of water,

71°

"

at depth of 5 fathoms,

75°, 10f 67°

"

of bottom,

44°

Depth, in fathoms,

262 = 207.

Nature of bottom,

Sp. mud & sand.

Direction of surface current,

Drift 1.16 1.4

Force of surface current,

1.16 1.4

Direction of bottom current,

262 50°  
564 53°

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *946*  
 Date, *Aug. 9<sup>th</sup>*  
 Locality, *Lah 39° 55' 30"*  
 Bearings, *Long. 71°, 14'*  
  
 Time of day, *2 P.M.* ; of tide,  
 State of sky, *Clear*  
 Temperature of air, *75°, 5'*  
     " surface of water, *71°*  
     " at depth of *5* fathoms, *61°, 16'*  
     " of bottom, *27°*  
 Depth, in fathoms, *241 = 247.*  
 Nature of bottom, *Gr. mud and sand*  
 Direction of surface current, *Wind S.W. Force "*  
~~Force of surface current,~~ *Drift N.W. 1 1/2 m*  
~~Direction of bottom current,~~ *Temperature of 25.1 - 10*  
~~Force of bottom current,~~ *58 f. 52°*  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

## REMARKS.

# TEMPERATURE RECORD.

Instrument used,

*Barrel*

Current number of observation,

*947*

Date,

*Aug. 9th*

Locality, Lat.

*39° 53' 30"*

Bearings, Long.

*71° 13' 30"*

Time of day, *4 P.M.* ; of tide,

State of sky,

*Clear*

Temperature of air,

*75°*

"

surface of water,

*70°*

"

at depth of

*5*

fathoms,

*60°, 10 f. 55°*

"

of bottom,

*44°*

Depth, in fathoms,

*3 1/2 = 319.*

Nature of bottom,

*Sand and Mud.*

Direction of surface current,

*Wind*

*S. W.*

*Force*

*2*

Force of surface current,

*Drift*

*N. S. W.*

*3/4*

Direction of bottom current,

*Surface current at 20 f.*

*0°*

Force of bottom current,

*"*

*"*

*50 f.*

*50°*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.



# TEMPERATURE RECORD.

Instrument used,

*Orion*

Current number of observation,

*948*

Date,

*Aug. 13 55*

Locality,

*Buzzards Bay*

Bearings,

*Pointe à la Poudre Island E 2 M.*

Time of day, *5.20 P.M.*; of tide,

State of sky,

*clear*

Temperature of air,

*76*

" surface of water,

*67*

" at depth of

fathoms,

" of bottom,

*66*

Depth, in fathoms,

*7*

Nature of bottom,

*fine S. mud - shells*

Direction of surface current,

*S. M. Force 4*

Force of surface current,

*Drift*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

# TEMPERATURE RECORD.

Instrument used,

None used.

Current number of observation,

949.

Date,

Aug. 23, 1888.

Locality,

Off Cape Cod, N. E. of Nantuxet.

Bearings,

Light, 23° 31' N.

50° 50' 31" W.

Time of day,

4.20<sup>am</sup>; of tide,

State of sky,

Clear

Temperature of air,

68°

"

surface of water,

66°

"

at depth of

5

fathoms,

66.

"

of bottom,

52.

Depth, in fathoms,

100.

Nature of bottom,

yellow mud.

Direction of

~~surface current,~~

Wind. W, force. 3.

Force of ~~surface current,~~

Drift N, N, W, 2 m.

Direction of bottom current.

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

See also ...

949 -

REMARKS.

At about 4 A.M. a boat  
containing Capt. Chester  
and others was sent  
with a few men to fish  
for Lopholatilus, while  
the main dredge was  
down, and before  
the sun rose several  
butterflies were taken  
on the surface, which  
are a much richer  
fauna than is generally  
found in the daytime.

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
Current number of observation, *950*,  
Date, *Aug. 23, 1883*  
Locality, *off the coast of New York*  
Bearings, *Lat. 40° 05' N.*  
*Long. 70° 32' W.*  
Time of day, *5.50 am*; of tide,  
State of sky, *Clear*  
Temperature of air, *69°*  
" surface of water, *65°*  
" at depth of fathoms,  
" of bottom, *52°*  
Depth, in fathoms, *69*.  
Nature of bottom, *Sand, shells, mud,*  
*bind.*  
Direction of ~~surface~~ *wind* current, *W. force 4.*  
~~Force of surface~~ *force* current, *N. N. W. 1 1/2 mi.*  
Direction of bottom current,  
Force of bottom current,  
Name of vessel,  
To what service attached,  
Name and rank of commanding officer,  
Name and position of observer,

950,  
REMARKS.

*Michaelis americana*, 3 birds. 10/10/10

# TEMPERATURE RECORD.

Instrument used,

Therm. with wings.

Current number of observation,

957.

Date,

Aug. 23, 1881.

Locality,

Lat. 39° 57' N.

Bearings,

Long 70° 31' 20" W.

Time of day, 9.40 am; of tide,

State of sky,

Clear.

Temperature of air,

78°

" surface of water,

67 1/2°

" at depth of 5 fathoms,

65°

" of bottom,

41°

Depth, in fathoms,

219.

Nature of bottom,

fine d.

Direction of <sup>wind</sup> surface current,

W. N. W. force 3.

Force of <sup>Drift</sup> surface current,

N. 1 1/2 m.

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

# REMARKS.

First time shrimps were  
used on trawl. brought up  
clean load, large Salpa,  
Shrimp, *Phyronoma*? large  
Copepod, etc. etc. all  
saved but some Salpae Chrom  
etc.

From trawl proper.  
*Nautilites* young etc.  
*Polysora* *lindiae*  
*Utricularia* *nagana* (young)  
*Flabellum* etc.

The shrimps, collected by  
Capt. Charles, are a  
decided success and  
some many fine  
specimens. Some of  
which that occasionally  
got up in trawl are  
generally crushed and  
lost, and in addition  
many small specimens  
never taken in trawl.



# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *952*

Date, *Aug 20, 1881.*

Locality, *Off Maricao vineyard.*

Bearings, *Lat. 39° 55' N.*

*Long. 70° 28' W.*

Time of day, *11.28 a.m.*; of tide,

State of sky, *Clear.*

Temperature of air, *87.2*

" surface of water, *68.*

" at depth of *5* fathoms, *66.*

" of bottom, *40.*

Depth, in fathoms, *388.*

Nature of bottom, *Yellow mud and sand.*

Direction of ~~surface current~~ *wind* *N. N. W. force 2.*

Force of surface current, *N. E. by N. 1/2 N.*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

952 -

REMARKS.

In rings many in places.  
No or 3 small gish. <sup>all of these</sup> <sup>1</sup> <sup>moles</sup>  
Many sp. 1000. Modica and

2. 1. 1.

deep sea water. Take about  
1/2 bushel thrown away  
30 Urthion. <sup>thrown away</sup>  
across the water all saved.

# TEMPERATURE RECORD.

Instrument used,

Therm. with wing.

Current number of observation,

953

Date,

Aug. 23, 1881.

Locality,

off Cape Cod's Vineyard.

Bearings,

Lat.  $39^{\circ} 52' 30''$  N.

Long.  $70^{\circ} 17' 30''$  W.

Time of day,

2.30 P.M.; of tide,

State of sky,

Clear.

Temperature of air,

72.

"

surface of water,

68.

"

at depth of

5

fathoms,

64.

"

of bottom,

39 1/2

Depth, in fathoms,

71 1/2.

Nature of bottom,

mud.

Direction of surface current,

Wind

W.N.W., force 2.

Force of surface current,

Drift

N.N.W., 1 1/2 m.

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

953 -

## REMARKS.

A water haul but  
 contained some things  
 that might have  
 come from the bottom  
 of squid, with two or three  
 most arms, including  
 a very long one <sup>near</sup> end  
 of the arms, several  
 small ~~arms~~ <sup>and</sup> ~~crustacea~~ <sup>very</sup> fishes.  
 The things contained  
 small crustacea,

# TEMPERATURE RECORD.

Instrument used. *Trawl with wings.*

Current number of observation, *954*

Date, *Aug. 23, 1881.*

Locality, *off Cape Cod*

Bearings, *Lat. 39° 53' N.*

*Long. 70° 18' 30" W.*

Time of day, *4.50 P.M.*; of tide,

State of sky, *Clear*

Temperature of air, *74.5*

" surface of water, *68*

" at depth of *5* fathoms, *65.*

" of bottom, *39 1/2*

Depth, in fathoms, *642.*

Nature of bottom, *Sand and mud.*

Direction of ~~surface current~~ *wind*, *W. by N. force 2.*

~~Force of surface current~~ *drift*, *N. N. W. 2 mi.*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

954 -  
REMARKS.

A water haul like  
the last. a few shrimps,  
and jelly-fish.

In one of the haul  
wings there was nothing.  
In the other a few  
crustacean, Sagitta,  
including the large  
Copepods. which have  
been obtained in all  
of the hauls of  
this day, and in addition  
another new species  
of tremendous size measuring  
just  $\frac{1}{2}$  inch long, represented  
by two species.

# TEMPERATURE RECORD.

Instrument used, *Trawl with log.*  
~~No record~~

Current number of observation, 955.

Date, Aug. 26, 1884.

Locality, Buzzards Bay.

Bearings, Light Neck.  
 E. by S., 1 + mile

Time of day, 10.50 a.m., of tide,

State of sky, Clear

Temperature of air, ~~67~~° 69°  
 " surface of water, ~~67.5~~ 67.5°

" at depth of fathoms,

" of bottom, ~~620~~ 68"

Depth, in fathoms, 7.

Nature of bottom, Sand.

Direction of ~~surface current~~, Wind S.W. Force 3.

~~Force of surface current~~, Drift- W. by S 1/4 S. 1/2 m.

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

*Observer made a ...*  
~~...~~  
~~...~~

955,

REMARKS.

Large amt. of dead  
eel grass and many  
Cliona encrusting



# TEMPERATURE RECORD.

Instrument used, *956 Fowl with wings*

Current number of observation, *956*

Date, *Aug 26, 1881*

Locality, *Bay*

Bearings, *1/2 S. S. E. 3/4 E. 1/8 m.*

Time of day, *11.26 a.m.*; of tide, *ebb.*

State of sky, *Clear.*

Temperature of air, *71.*

" surface of water, *69*

" at depth of fathoms,

" of bottom, *68.*

Depth, in fathoms, *5 1/4.*

Nature of bottom, *Sand*

Direction of ~~surface current~~ *wind S.W. force 3.*

~~Force of surface current~~ *W. by S. 1/4 m*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

956-

REMARKS.

Same character of bottom  
as last, dead eel grass,  
Many specimens of  
*Scirpus* *fl. alba* *C. lora*  
*Scirpus*.

TEMPERATURE RECORD.

Instrument used, *Trawl with seines*

Current number of observation, 957

Date, Aug. 26, 1885.

Locality, *Bulzard's Bay*

Bearings, My. Neck S. S. E.  $\frac{3}{4}$   
E, 18 m.

Time of day, 11.45 ; of tide, ebb.

State of sky, *Clear.*

Temperature of air, 73.

surface of water, 69.5

at depth of fathoms,

of bottom, 68.

Depth, in fathoms, 6.

Nature of bottom, *Sand & shales.*

Direction of <sup>wind</sup> ~~surface current~~, S.W. force 4.

Force of surface current.  $17.3/4 + 1.4/4 + 2.1/4$

Direction of bottom current,

Force of bottom current,

Name of vessel.

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

957.

REMARKS.

*Fringa & Alcedo*  
abundant.

# TEMPERATURE RECORD.

Instrument used, *Trawl with wings.*

Current number of observation, *958.*

Date, *Aug. 26, 1881.*

Locality, *Buzzards Bay,*

Bearings, *Pigeon Rock S. by E.  
1/4 E. 10.*

Time of day, *12.20* ; of tide, *ebb.*

State of sky, *Clear.*

Temperature of air, *75,*

" surface of water, *70,*

" at depth of fathoms,

" of bottom, *68,*

Depth, in fathoms, *5.*

Nature of bottom, *Sand, stones & shells,*

Direction of ~~surface current~~, *Wind S.W. force 5.*

~~Force of surface current~~, *Drift N.S.W. 1/3 m*

Direction of bottom current.

Force of bottom current,

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

958,  
REMARKS.

Falka & China,

## TEMPERATURE RECORD.

Instrument used, *Trawl with wings.*

Current number of observation, *959.*

Date, *Aug. 26. 1881.*

Locality, *Buzzards Bay.*

Bearings, *Nyes Neck S.*

*1/2 m.*

Time of day, *12.40 p.m.* of tide, *ebb.*

State of sky, *Clear.*

Temperature of air, *72.*

" surface of water, *69.*

" at depth of fathoms,

" of bottom, *68.*

Depth, in fathoms, *5.*

Nature of bottom, *sand, stones, shells,*

Direction of ~~surface current,~~ *and S. W. force 5.*

Force of ~~surface current,~~ *drift W. 1/2 mile.*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

959.

REMARKS.

No Techya ?



# TEMPERATURE RECORD.

Instrument used,

Trawl towing;

Current number of observation,

960.

Date,

Aug. 26. 1884.

Locality,

Buzzards Bay.

Bearings,

Nyes Neck S.  $3\frac{1}{4}$  E.

$\frac{1}{2}$  m.

Time of day,

1.10 P.M. of tide,

State of sky,

Clear.

Temperature of air,

72.5

"

surface of water.

69.5

"

at depth of

fathoms.

"

of bottom,

68.

Depth, in fathoms,

4  $\frac{1}{2}$

Nature of bottom,

Sand, stones, shells.

Direction of ~~surface current~~,

Wind S.W. Force 5.

Force of ~~surface current~~,

Drift S.W. by W.  $\frac{1}{2}$  m.

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.